ABSTRACT OF THE DISCLOSURE

Various implantable medical devices (IMDs) are disclosed for implantation in a patient. The IMD includes pacing circuitry configured to selectively produce pacing pulses at a programmable pacing rate. In one embodiment, the IMD is configurable to subject a patient to a stress test. The IMD may be configurable to subject the patient to the stress test at the time specified by stored timing information, or in response to a signal (e.g., from a patient activator). Another embodiment of the implantable medical device (IMD) includes sensor circuitry, a memory for storing data, and a control unit. The sensor circuitry produces sensor data relating to cardiac condition. The control unit is configurable to store the sensor data in the memory until a trigger signal is received. Methods are described for performing a stress test in a patient with an IMD, and for subsequently reproducing cardiac operational states.